REMARKS

The Examiner is thanked for the performance of a thorough search.

Claims 1, 3, 13, 23, 39, 42-44, 48, 50, 54, 64, and 67-69 have been amended. No claims have been canceled or added. Hence, Claims 1-6, 13-25, 39-44, and 48-69 are pending in the present application.

Each issue raised in the Office Action mailed November 14, 2007 is addressed hereinafter.

I.   ISSUES NOT RELATED TO PRIOR ART

        A.   INTERPRETATION OF CLAIM LANGUAGE IN THE OFFICE ACTION

On page 2, the Office Action provides a description that allegedly interprets some of the language used in the claims. The Applicants respectfully note that this alleged interpretation of the claim language is not referenced in the claim rejections, and otherwise does not appear to be used in any way in any of the claim rejections. For this reason, the Applicants disagree with the alleged interpretation of the claim language to the extent that any such interpretation comprises anything other than the meaning that would be attributed by one of skill in the art to the claims when viewed in light of the specification.

For example, in page 3 the Office Action attempts to interpret the following feature of Claim 1:

> while validating a particular XML element in said XML-based input stream, causing said XML processor to generate one or more messages that indicate how to process said particular XML element other than validating said particular XML element,...

The Office Action provides the following alleged interpretation:

... the XML processor is caused to generate messages that identify the requested annotations in response to the request, and provides for requesting directions regarding such processing and generating messages that identify the processing, or a particular node, while that particular node is being validated without having to wait for validation of the entire XML input prior to receiving requests and generating associated responses.

This alleged interpretation appears to be some sort of concatenation of different passages from the Applicants' specification but is not entirely accurate. For example, the claim language being interpreted makes no reference to any annotations, while the alleged interpretation refers to "requested annotations". In another example, the alleged interpretation refers to "such processing" which appears to be a term used in paragraphs [0025] and [0050] of the Applicants' specification, while the claim language being interpreted makes no reference to the term "processing". In another example, the claim language being interpreted refers to "a particular XML element", while the alleged interpretation does not.

In sum, the alleged interpretation provided in the Office Action is internally inconsistent and does not accurately describe the claim language it purports to interpret. For this reason, the Applicants respectfully disagree with, and do not accept, the alleged interpretation provided in the Office Action.

B.   REJECTIONS UNDER 35 U.S.C § 112

The Office Action rejected Claims 1-6, 42-44, and 48-69 as allegedly indefinite under 35 U.S.C. § 112, second paragraph.

Specifically, the Office Action asserts that based only on Fig. 1 and on paragraph [0049] of the present application, one of ordinary skill in the art would not be reasonably appraised of the scope of Claims 1 and 48. However, this reasoning of the Office Action is clearly flawed because in appraising the scope of the claims, one of ordinary skill in the art would consider the Applicants' disclosure in its entirety, including the drawings, specification, and claims as filed.

It is respectfully submitted that, in light the Applicants' disclosure, the scope of Claims 1 and 48 is very clear and definite to one of skill in the art. Further, while the Office Action asserts that Claims 1, 48, 50, 53, 54, and 69 are rejected under 35 U.S.C. § 112, second paragraph for alleged indefiniteness, the Office Action fails to provide any reasoning beyond a merely conclusory statement.

However, solely to expedite the prosecution of the present application, independent Claims 1, 48, and 54 have been amended herein to fully address any indefiniteness concerns that the Office Action might have.

For the above reasons, reconsideration and withdrawal of the rejections of Claims 1-6, 42-44, and 48-69 under 35 U.S.C. § 112 is respectfully requested.

II.   ISSUES RELATING TO THE CITED ART

        A.   INDEPENDENT CLAIM 1

        Claim 1 was rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Lovett et al., U.S. Patent No. 7,134,072 ("LOVETT") in view of Fuh et al., U.S. Patent Application Publication No. US 2004/0073870 ("FUH"). The rejection is respectfully traversed.

        Claim 1 comprises the features of:

while an XML processor is performing a validation operation on an XML-based input
        stream, **wherein the XML processor is configured to send validated XML
        data to an application,** performing the steps of:
        **while validating a particular XML element in said XML-based input
                stream, causing said XML processor to generate one or more
                messages** that indicate **to the application how the application is to
                process** said particular XML element, by identifying one or more
                annotations that are associated with said particular XML element; and
        responding to a request for information about said particular XML element **by
                providing said one or more messages.**

Thus, Claim 1 comprises the features of: **while an XML processor is performing a validation operation on an XML-based input stream, where the XML processor is configured to send validated XML data to an application,** performing the steps of: (1) **responding to a request** for information about said particular XML element by providing said one or more messages; and (2) causing the XML processor to generate the one or more messages while validating a particular XML element from the stream, where the **one or more messages** indicate **to the application** how **the application is** to process the particular XML element other than validating by identifying one or more annotations. It is respectfully submitted that these features of Claim 1 are not described or suggested by LOVETT and FUH.

<u>Responding to requests while performing a validation operation</u>

The Office Action asserts that the feature of Claim 1 of responding to a request for information about said particular XML element by providing said one or more messages is described by in Fig. 3 and in paragraph [0043] of FUH. This assertion is incorrect.

In general, FUH describes a system for XML schema validation, which provides: loading an XML document into a runtime-validation engine; loading an Annotated Automation Encoding (AAE) for an XML schema definition into an XML schema validation parser; and the XML schema validation parser validating the XML document against the XML schema definition by using the AAE . (FUH, Abstract, paragraph [0007]). Significantly, however, FUH does not describe or suggest that, **while the validating is being performed**, requests for information are being received and responses to these requests are being provided.

For example, Fig. 3 of FUH describes a method for compiling XML schemas. (See also FUH, paragraphs [0010] and [0031]-[0033]. Significantly, however, compiling XML schemas

has <u>nothing</u> to do with validating XML elements or with **responding to requests** for

information **while the validating is being performed**, as featured in Claim 1.

Further, in paragraph [0043] FUH describes the structure of an annotation portion of an

AAE record for an example XML schema definition. Significantly, while paragraph [0043]

may be describing some steps in the process of using an AAE to <u>compile</u> the XML schema

definition, paragraph [0043] has absolutely nothing to do with validating XML elements or

with **responding to requests** for information **while the validating is being performed**, as

featured in Claim 1. In fact, FUH describes that the validation of an entire XML document is

performed by a run-time validation engine. (See FUH, Fig. 10, and paragraphs [0048]-[0050].)

Significantly, however, FUH does <u>not</u> describe that the run-time validation engine is configured

to **respond to requests** for information **while the validating is being performed**, as featured

in Claim 1.

For the above-reasons, FUH does not describe the feature of Claim 1 of responding to a

request for information about said particular XML element by providing said one or more

messages.

<u>Responding to requests with messages indicating how an application is to process an XML
element that is being validated</u>

Claim 1 comprises the feature of:

while an XML processor is performing a validation operation on an XML-based input
stream, **wherein the XML processor is configured to send validated XML
data to an application,** performing the steps of:
**while validating a particular XML element in said XML-based input
stream, causing said XML processor to generate one or more
messages** that indicate **to the application how the application is to
process** said particular XML element, by identifying one or more
annotations that are associated with said particular XML element.

In the above feature of Claim 1, an XML processor is configured to send validated XML data to an application. While validating a particular XML element from an XML-based input stream, the XML processor is caused to generate one or more messages that indicate **to the application** how **the application is to process** that particular XML element.

The Office Action asserts that the above feature of Claim 1 is described in paragraph [0051] of FUH. This assertion is incorrect.

In paragraph [0051], FUH describes a method for validating an XML document. Significantly, FUH describes that an **entire** XML document is loaded into the run-time validation engine before validation of the XML document is performed (see, for example, lines 9-11 in paragraph [0051]). In contrast, Claim 1 features validating of an XML-based input **stream**.

Even more significantly, neither paragraph [0051] nor any other paragraph of FUH describes that the run-time validation engine is operable to generate messages that indicate to an application, which is to receive the validated XML document, how the application is to process an XML element that is being validated. In contrast, Claim 1 includes the feature of: **while validating a particular XML element in said XML-based input stream, causing said XML processor to generate one or more messages** that indicate **to the application** how **the application is to process** said particular XML element. Furthermore, Lovett does not describe this feature of Claim 1 either.

For the foregoing reasons, LOVETT and FUH do not describe or suggest all features of Claim 1. Thus, Claim 1 is patentable under 35 U.S.C. § 103(a) over LOVETT in view of FUH. Reconsideration and withdrawal of the rejection of Claim 1 is respectfully requested.

B.   INDEPENDENT CLAIM 13

Independent Claim 13 was rejected under 35 U.S.C. § 103(a) as allegedly unpatentable

over LOVETT in view of FUH. The rejection is respectfully traversed.

Claim 13 comprises the features of:

while performing a validation operation on an XML-based input stream,
performing the steps of:
receiving a request for particular information; and
responding to said request by providing said particular information;
wherein said particular information comprises one or more of:
the name of a node **currently being processed**;
the data type of the node **currently being processed**;
the current validation mode for the node **currently being processed**, wherein
the current validation mode is one of strict mode, lax mode, and skip
mode;
the **current state** of said validation operation; and
annotations that are associated with the node **currently being processed**.

It is respectfully submitted that the above features of Claim 13 are not described or suggested

by LOVETT and FUH.

The Office Action asserts that in col. 5, lines 25-60 and col. 10, lines 50-60, LOVETT

describes the feature of Claim 1 of **while performing a validation operation on an XML-**

based input stream, performing the steps of: **receiving a request for particular information**;

and **responding to said request by providing said particular information**. This assertion is

incorrect.

In general, LOVETT describes an architecture for processing XML documents and

building in-memory tree representations of the XML documents. More specifically, LOVETT

describes accommodating XML-data schemas as a way of defining data types within schemas

and converting the XML-data schemas to DTD objects that may be used to validate XML data

in a XML document. (See LOVETT, col. 4, lines 33-39.)

Significantly, LOVETT does not describe the features of receiving request for information and responding to such requests <u>while</u> performing a validation operation on an XML-based input stream. For example, in col. 5, lines 25-60, LOVETT describes how an XML document can be parsed into individual schema elements and data elements. The schema elements establish a schema, while the data elements are validated against the schema. If the data elements are valid, then these data elements are used to form an in-memory representation (i.e., a DOM tree) of the XML document. However, LOVETT does not describe that <u>while</u> a validation node factory is validating a data element, the validation node factory is capable of receiving requests for information or of providing any information in response to such requests. (See, for example, LOVETT, col.6, lines 40-49).

In contrast, Claim 13 comprises the feature of while performing a validation operation on an XML-based input stream, performing the steps of: receiving a request for particular information; and responding to said request by providing said particular information.

Contrary to the assertion in the Office Action, in col. 10, lines 1-60 LOVETT does not describe the above feature of Claim 13 either. For example, in col. 10, lines 40-60 LOVETT describes calls that are generated in response to a parser's "CreateNode" call, where the parser parses an input XML document to produce the schema elements and the data elements (see LOVETT, col. 9, lines 31-33.) Thus, any calls in response to an action by the parser are generated <u>before</u> any validation of the XML document is attempted. Thus, this passage of LOVETT cannot possibly describe feature of Claim 13 of: **<u>while performing a validation</u> <u>operation</u>** on an XML-based input stream, performing the steps of: receiving a request for particular information; and responding to said request by providing said particular information.

For these reasons, LOVETT does not describe the above feature of Claim 13.

Furthermore, Claim 13 comprises the feature of **responding to a request** by providing **particular information**, where the particular information comprises data about a node from the XML-based stream that is **currently being validated**. Examples of such information include the name of the node, the data type of the node, the current validation mode for the node, the current state of the validation operation that is being performed on the node, and any annotations that may be associated with the node.

It is respectfully submitted that LOVETT and FUH do not describe or suggest this feature of Claim 13. For example, as discussed above, in col. 5, lines 1-60 LOVETT describes some calls that can be generated in response to LOVETT's parser when the parser <u>parses</u> an XML document into schema elements and data elements. Thus, this passage of LOVETT cannot possibly describe the feature of Claim 13 of **responding to a request** by providing the name, data type, and current validation mode of an XML node that is **<u>currently being validated</u>**. Further, as discussed above with respect to Claim 1, while FUH describes in paragraph [0051] a method for validating an XML document, this method of validating does <u>not</u> involve <u>responding to requests</u> while an XML element is being validated. Thus, this paragraph of FUH does not describe the feature of Claim 13 of **responding to a request** by providing the current state of the validation operation of, and any annotations associated with, an XML node that is **<u>currently being validated</u>**.

For the foregoing reasons, LOVETT and FUH do not describe or suggest all features of Claim 13. Thus, Claim 13 is patentable under 35 U.S.C. § 103(a) over LOVETT in view of FUH. Reconsideration and withdrawal of the rejection of Claim 13 is respectfully requested.

C.   INDEPENDENT CLAIM 39

Claim 39 was rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over LOVETT in view of FUH.

Claim 39 includes features similar to the features of Claim 13 discussed above. Thus, Claim 39 is patentable under 35 U.S.C. § 103(a) over LOVETT in view of FUH for at least the reasons given above with respect to Claim 13. Reconsideration and withdrawal of the rejection of Claim 39 is respectfully requested.

D.   INDEPENDENT CLAIMS 48 AND 54

Claims 48 and 54 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over LOVETT in view of FUH.

Claims 48 and 54 include features similar to the features of Claims 1 and 13, respectively, except in the context of a computer-readable medium. Thus, Claims 48 and 54 are patentable under 35 U.S.C. § 103(a) over LOVETT in view of FUH for at least the reasons given above with respect to Claims 1 and 13. Reconsideration and withdrawal of the rejections of Claims 48 and 54 is respectfully requested.

E.   DEPENDENT CLAIMS 2-6, 14-25, 40-44, 49-53, AND 55-69

Claims 2-6, 14-25, 40-44, 49-53, and 55-69 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over LOVETT in view of FUH.

Each of Claims 2-6, 14-25, 40-44, 49-53, and 55-69 depends from one of independent Claims 1, 13, 39, 48, and 54 and thus includes each and every feature of the corresponding base claim. Thus, each of Claims 2-6, 14-25, 40-44, 49-53, and 55-69 is allowable for the reasons given above for Claims 1, 13, 39, 48, or 54. In addition, each of Claims 2-6, 14-25, 40-44, 49-53, and 55-69 introduces one or more additional features that independently render it

patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those features is not included at this time. Therefore, it is respectfully submitted that Claims 2-6, 14-25, 40-44, 49-53, and 55-69 are allowable for the reasons given above with respect to Claims 1, 13, 39, 48, and 54. Reconsideration and withdrawal of the rejections of Claims 2-6, 14-25, 40-44, 49-53, and 55-69 is respectfully requested.

III.   CONCLUSION

The Applicants believe that all issues raised in the Office Action have been addressed. Further, for the reasons set forth above, the Applicants respectfully submit that allowance of the pending claims is appropriate. Reconsideration of the present application is respectfully requested in light of the amendments and remarks herein.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, a law firms check for the petition for extension of time fee is enclosed herewith.

If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

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Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP

Dated: February 13, 2008

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